

~~July~~ June 17, 1954

Dear Francis—

They must have been able to locate Preer— at any rate the Michigan plans now are all I could have asked for.

I am sorry not to have spent more time with you planning the talks. We should have some time Wednesday July 21— Esther and I will drive to Ann Arbor on Tuesday — but this will be after you give your two main talks.

I thought I would talk on Thursday about recombination analysis (sex) in its application to the genetics of drug resistance, mainly Cavalli's work. Unless you say differently, I will assume you will already have covered the pre-adaptive quality of such mutations— variance analysis, replica plating, indifference of medium, etc.— whether or not resistance is the particular example on which you focus. This is the main issue where we may have to mesh together. Friday, I would go to another "adaptive" phenomenon, phase variation in *Salmonella* and its analysis by transduction (as far as this has gone— see the enclosed abstract— to do a proper job we will have to have another marker or two linked to H_1 , and this will need some work).

What to do about the roundtable? What notions have you about it? I think "mutation" is the central topic, and one thing that suggests itself would be a discussion of structural vs. chemical interpretations, i.e., are there "point mutations"? I have just finished cleaning up the ms. for the Rutgers affair, and this is somewhat in my mind. If you can manage with a rather worked-over draft (don't bother to return) maybe something there will suggest itself. We don't have to settle this now, but it might be helpful to have some advance preparation.

Some other possible topics: genetic bases of progressive vs. regressive evolution? Do adaptive mutations in the laboratory reflect new gene functions or are they generally atavistic? What is the relative importance of variational possibilities and selective forces in microbial evolution?—which is not very different from the bearing of genetic findings on taxonomy. Or should we take a practical turn: how can we beat the microbes: is our knowledge of adaptive mechanisms of any potential utility? Or do you want to beat around the bush on 1 gene: 1 enzyme? Or should we beat Lysenko over the head? [Have you seen Haldane's latest "Biochemistry of genetics?"] J or Hinshelwood)

Thanks for mailing the reprints (just arrived).

Yours sincerely,

Joshua Lederberg